

aa4 binder, and a separator element disposed between the anode and the cathode.

aa5 15. (Amended) A battery comprising an anode, an electrolyte, a cathode and a separator element disposed between the anode and the cathode, the electrolyte comprising lithium ions and the cathode comprising nanoparticles of [intercalation type] electroactive material that intercalates lithium ions and a binder, wherein the nanoparticles of electroactive material in the cathode have an average diameter from about 5 nm to about 500 nm and wherein the electroactive material in the cathode exhibits an energy density greater than about 900 Wh/kg during discharge of the battery.

pb/c4 (Please add the following new claims:

20. A method of forming a battery, the method comprising incorporating a collection of vanadium oxide particles having an average diameter from about 5 nm to about 500 nm into a cathode structure.

aa6 21. The method of claim 20 wherein the incorporation of the collection of vanadium oxide particles into the cathode structure comprises combining a binder with the collection of vanadium oxide particles.

22. The method of claim 21 wherein the binder comprises a polymer.

23. The method of claim 20 wherein the incorporation of the collection of vanadium oxide particles into the cathode structure comprises combining additional electroactive particles with the collection of vanadium oxide particles.

24. The method of claim 20 wherein the incorporation of the collection of vanadium oxide particles into the cathode structure comprises combining electrically conductive particles with the collection of vanadium oxide particles.